

REMARKS

Claims 1-2, 4, 12-14, 16-17, 26-27, 30-31, 33, 40-41 are currently amended. Claims 3, 18, 32 and 47-50 are canceled without prejudice.

Claims 12, 13, 26, 27, 40 and 41 are amended to conform the Markush group recitation to the rest of the Markush group recitations in the present claim set, for reasons of form and not for reason of patentability.

Claim 2 and 17 are amended to correct an inadvertent misspelling of the word “moieties” and not for reason of patentability.

Inasmuch as claims 3 and 18 are canceled, claims 4 and 19, which depended from them respectively, are amended to depend from claims 1 and 16. These claims 4 and 19 are revised to correspond to the recitations in the claims from which they depend, and not for reason of patentability. For completeness, Applicants further note that although a biguanide may be a non-ionic organic compound, biguanides are typically positively charged at physiological pH. See, e.g., the Ikeda reference “Antibacterial Activity of Polycationic Biocides” starting at page 743 in “High Performance Biomaterials” edited by Szycher (1978), submitted in this case with IDS of July 25, 2005, as citation 71.

Applicants’ attorney appreciatively acknowledges the Examiner’s courtesy in conducting an interview by telephone on March 28, 2006. The following statement of the arguments presented at the interview also documents Applicants’ response to the Action of January 3, 2006.

CALCATERRA U.S. PATENT 4,810,567

The Action rejects claims 1-3, 5-14, 16-18, 20-28, 30-32-, 34-42, 51-53, 57-60, 64-66 and 68-69 as anticipated under 35 U.S.C. 102(b) by Calcaterra et al. US 4,810,567. The Action rejects claims 4, 19 and 33 as being unpatentable under 35 U.S.C. 103(a) over Calcaterra et al. in view of Mao US 6,346,125. The Action rejects claims 15, 29, 43-46, 54, 61 and 67 as being unpatentable under 35 U.S.C. 103(a) over Calcaterra et al. in view of Kolb et al. US 6,797,856. The Action rejects claims 56 and 63 as being unpatentable under 35 U.S.C. 103(a) over Calcaterra et al. Thus all rejections on prior art use Calcaterra as the principal reference.

Calcaterra states: “For the purpose of this application an antimicrobial agent is any substance that kills or prevents the growth of a microorganism, and includes antibiotics, antifungal, antiviral, and antialgal agents, **but specifically excluding nonspecific antiseptics acting by a general decrease in surface tension, as for example quaternary ammonium compounds.**” [US 4,810,567 col. 1, lines 29-35, **emphasis added.**] Calcaterra teaches the use of an antimicrobial agent represented by the symbol □ in the formula at the top of col. 6, which agent is exemplified by the antibiotic polymyxin at col. 10, line 60 and following.

As the Examiner agreed during the phone interview, Calcaterra expressly **teaches away** from the use of **quaternary ammonium compounds** and the like. The **biguanides** are similarly “nonspecific antiseptics acting by a general decrease in surface tension,” as contrasted with antibiotics such as polymyxin. See, e.g. the aforementioned Ikeda reference at p. 744 ff.

Claim 1 is amended to recite:

1. A material for absorbing biological fluids, comprising a flexible substrate and an enhanced surface, said enhanced surface comprising a polymer of antimicrobial monomeric moieties comprising a quaternary ammonium structure or a biguanide, said polymer being covalently bonded by non-siloxane bonds to said flexible substrate so as to be non-hydrolyzable and non-leachable and wherein a sufficient amount of said non-hydrolyzable, non-leachable polymer is covalently bonded to said flexible substrate to render the material antimicrobial when exposed to aqueous fluids, menses, bodily fluids, or wound exudates.

Independent claims 16 and 30 are also amended to recite a quaternary ammonium structure or a biguanide. Claim 51 is not amended. Claim 51 as filed recites “polymeric molecules having a multiplicity of quaternary ammonium groups”.

PROVISIONAL REJECTION FOR OBVIOUSNESS-TYPE DOUBLE PATENTING

The Action provisionally rejects claims 1, 2, 6, 7-11, 15-17, 20-25, 29-31, 34-39, 43-46 and 51 on the ground of nonstatutory obviousness-type double patenting over claims 9-18 of copending Application No. 09/857,906. Applicants’ attorney told the Examiner that the copending application, as amended, has now been allowed and is commonly owned with the present application. If, upon review of the claims as allowed and the amended claims of the present case, the Examiner confirms the determination of nonstatutory obviousness-type double patenting, the rejection would be overcome by a terminal disclaimer.

DEGREE OF POLYMERIZATION

This topic was not raised in the phone interview, but is included in this Response for completeness of the discussion of the claims. With respect to claim 5, Applicants see that the Examiner on page 2, last two lines of the Action, interprets the term “degree of polymerization” as a percentage. However Applicants submit that the term is defined as “the number of monomeric units in a macromolecule or oligomer molecule, a block or a chain.” IUPAC Compendium of Chemical Terminology, 2nd Edn. 1997 downloaded at <http://www.iupac.org/goldbook/D01569.pdf> and cited as 1996, 68, 2291.

CONCLUSION

For the foregoing reasons, Applicants submit that the claims presented herewith are patentable over the prior art of record and respectfully solicits prompt action thereon. If any questions remain, the Examiner is invited to phone the undersigned attorney.

Respectfully submitted:

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